

WHAT IS CLAIMED IS:

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1. An optical pickup apparatus comprising:
a laser light emitting device;
a deflector for deflecting laser light emitted from the laser light
emitting device;
a lens driver for moving an objective lens for conversing the laser
light deflected by the deflector onto an optical recording disk in a focusing
direction and a tracking direction thereof; and
a frame member for supporting the laser light emitting device, the
deflector and the lens driver,
wherein the deflector is positioned such that the center of the
intensity distribution of the laser light is aligned with the optical axis of the
objective lens.

2. The optical pickup apparatus as set forth in claim 1, wherein the
deflection angle of the deflector is adjusted such that a direction in which the
diverging angle in a direction perpendicular to the optical axis of the emitted
laser light from the laser emitting device becomes the narrowest is aligned with
the radial direction of the optical recording disk.

3. The optical pickup apparatus as set forth in claim 2, wherein the
frame member includes a base member on which the deflector is mounted,
which is configured so as to be movable in a direction parallel with the optical
axis of the laser light.

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1 4. A method of manufacturing the optical pickup apparatus as set forth
2 in claim 1, comprising the steps of:
3 adjusting the deflection angle of the deflector such that a direction in
4 which the diverging angle in a direction perpendicular to the optical axis of the
5 emitted laser light from the laser emitting device becomes narrowest is aligned
6 with the radial direction of the optical recording disk;
7 moving the deflector in a direction parallel with the optical axis of the
8 laser light such that the center of the intensity distribution of the laser light is
9 aligned with the optical axis of the objective lens.

1 5. The manufacturing method as set forth in claim 4, wherein the
2 adjustment of the deflection angle of the deflector is effected such that the laser
3 light is incident perpendicularly to an aperture of the objective lens.

1 6. The manufacturing method as set forth in claim 4, further comprising
2 the steps of:
3 providing an adjuster for adjusting the deflection angle of the
4 deflector in a first axial direction parallel with a direction in which the diverging
5 angle of the laser light emitted from the laser light emitting device becomes the
6 narrowest and a second axial direction parallel with a direction in which the
7 diverging angle of the laser light becomes the broadest, and for moving the
8 deflector in the direction parallel with the optical axis of the laser light;
9 setting the deflector to the adjuster so as to be supported thereby
10 before the adjusting step; and

11 bonding the deflector onto the frame member after the moving step
12 together with the adjuster supporting the deflector,
13 wherein the adjusting step and the moving step is effected by the
14 adjuster.

1 7. The optical pickup apparatus as set forth in claim 1, wherein the
2 optical axis of the laser light is aligned with the tracking direction when viewed
3 from a direction parallel with the optical axis of the objective lens.

1 8. A method of manufacturing the optical pickup apparatus as set forth
2 in claim 1, comprising the steps of:
3 adjusting the deflection angle of the deflector such that a direction in
4 which the diverging angle in a direction perpendicular to the optical axis of the
5 emitted laser light from the laser emitting device becomes narrowest is aligned
6 with the radial direction of the optical recording disk;
7 moving the deflector in a direction parallel with the optical axis of the
8 objective lens such that the center of the intensity distribution of the laser light is
9 aligned with the optical axis of the objective lens.

1 9. A method of manufacturing the optical pickup apparatus as set forth
2 in claim 7, comprising the steps of:
3 adjusting the deflection angle of the deflector such that a direction in
4 which the diverging angle in a direction perpendicular to the optical axis of the
5 emitted laser light from the laser emitting device becomes narrowest is aligned
6 with the radial direction of the optical recording disk;

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7 moving the deflector in a direction parallel with the optical axis of the
8 objective lens such that the center of the intensity distribution of the laser light is
9 aligned with the optical axis of the objective lens.

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1 10. An optical pickup apparatus comprising:
2 a laser light emitting device;
3 a lens driver for moving an objective lens for converging the laser
4 light deflected by the deflector onto an optical recording disk in a focusing
5 direction and a tracking direction thereof; and
6 a frame member for supporting the laser light emitting device and the
7 lens driver,
8 wherein the optical axis of the objective lens is aligned with the
9 center of the intensity distribution of the laser light.

1 11. The optical pickup apparatus as set forth in claim 10, wherein a
2 direction in which the diverging angle in a direction perpendicular to the optical
3 axis of the emitted laser light from the laser emitting device becomes the
4 narrowest is aligned with the radial direction of the optical recording disk.

1 12. The optical pickup apparatus as set forth in claim 10, wherein at
2 least one of the laser emitting device and the objective lens is adjusted such
3 that the optical axis of the objective lens is aligned with the center of the
4 intensity distribution of the laser light.